

In the Specification:

On page 1, please amend the Cross-Reference To Related Applications as follows:

CROSS-REFERENCE TO RELATED APPLICATIONS

The present application is a continuation of U.S. Application No. 10/151,731, filed May 20, 2002 which is a continuation-in-part (CIP) of copending U.S. Application No. 09/344,897, filed June 22, 1999, and which is incorporated herein by reference in its entirety.

Please amend the Summary of the Invention as filed as follows:

The present invention may be embodied as a method for analysis of DNA data. A DNA source image is generated based on the DNA data. A digital bit-map is created from the DNA source image plotting image intensity data against a two-dimensional coordinate system from an initial viewpoint. An image model is generated based on the digital bit-map. The image model comprises model data representing the image intensity data as virtual points on a three-dimensional coordinate system further incorporating the two-dimensional coordinate system of the digital bit map. A DNA analysis image is generated based on the image model. The DNA analysis image represents the model data from an analysis viewpoint with respect to the two-dimensional coordinate system. The analysis viewpoint differs from the initial viewpoint. The DNA analysis image is then displayed.

~~— The present invention has solved the problems cited above, and is a method for accurate and quantitative analysis of a handwriting sample.~~

~~— The first step in the method is to create a digital bit map of the handwriting sample, as by using an electronic scanner or digital camera. The bit map file is then used to create a digital image of the writing sample, and a cursor is used to mark selected points on elements of the writing for measurement. The measurements include determination of the slant angle of strokes in the handwriting and measurement of heights of the major areas of the writing.~~

~~— The measurements are tabulated and/or categorized according to a predetermined scheme, and these results are then compared with a predetermined standard for determining certain characteristics relating to the person who produced the handwriting sample.~~

~~—— The slant angle measurements can be made by using the cursor establish a base line for each stroke and a second line between a starting point where the stroke lifts off the base line of the stroke, and an ending point where the stroke ceases to rise, and then calculating the angle between the two lines. The cursor may also be used to mark the tops of the letters for measuring the height of the areas of the writing, by calculating the vertical distance between the tops of the letters and base line.~~

~~—— The moving cursor may preferably be a feeler cursor, which moves upwardly or downwardly across the display from its release point to the point where the writing begins, so that operator can simply position the cursor above or below the appropriate point on the writing and the cursor will then move upwardly or downwardly automatically to accurately identify and mark the upper/lower end of the stroke.~~

~~—— The method may also include the step of measuring the relative darkness of the pen or pencil line which forms a stroke, by using a cursor to take a cut taken across the stroke and then translating the measured gray scale darkness at each point so as to form a two dimensional display, in which the depth of points along a "valley" (or, in some embodiments, an upwardly projecting "ridge") represent the darknesses of the points relative to the paper.~~

~~—— The depth measurements may be tabulated and analyzed in a manner similar to the angle and height measurements. Moreover, the two dimensional display may be divided vertically from its lowermost depth or point, and then the areas of the two sides of the valley can be calculated to determine which side is the darker, and therefore on which side the pressure of the pen/pencil point was greatest as the writing was formed. This information may be used to determine whether the person's right or left hand was used to create the writing sample.~~

~~—— Furthermore, the method may include the step of compiling the two dimensional depth measurements along a continuous length of a selected stroke, and then panning the view so as to create a 3 dimensional image of the stroke in which the writing appears as a continuous valley or ridge. The relative weights of~~

~~the two sides of the stroke can be determined by dividing the 3-dimensional image vertically from its lowermost or uppermost limit and then calculating the volume of the valley/ridge on either side of the divide.~~